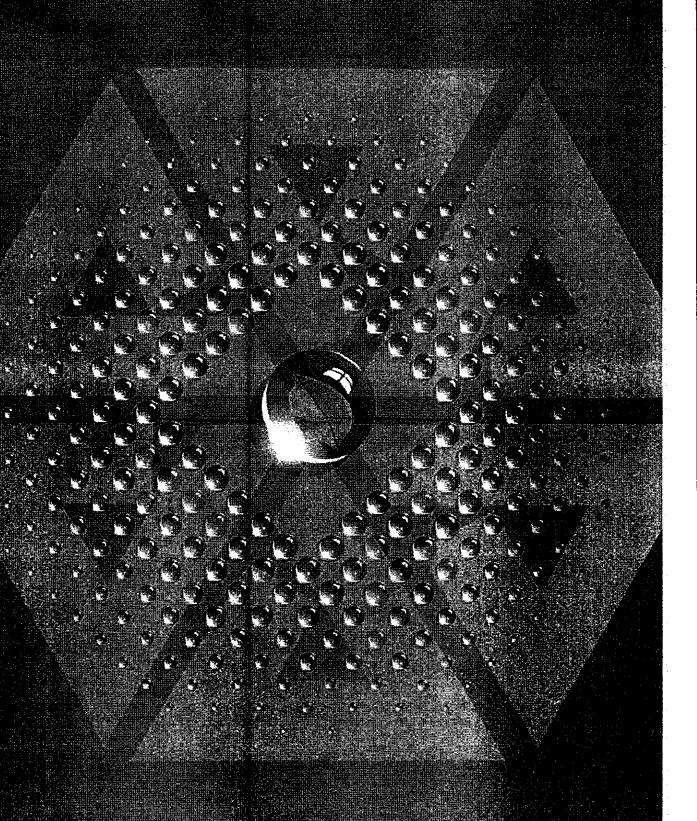
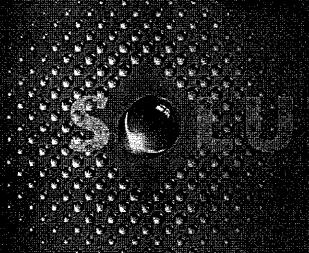
ARTESIAN RESOURCES CORPORATION ANNUAL REPORT 2010





Weprovide



For our Customers

We efficiently, reliably and safely deliver water and wastewater services, just as we have for more than 100 years.

For our Communities

We provide critical infrastructure that helps communities meet the challenges of expected growth and realize its benefits.

For our Shareholders

We consistently deliver sound, predictable results in good times and bad.

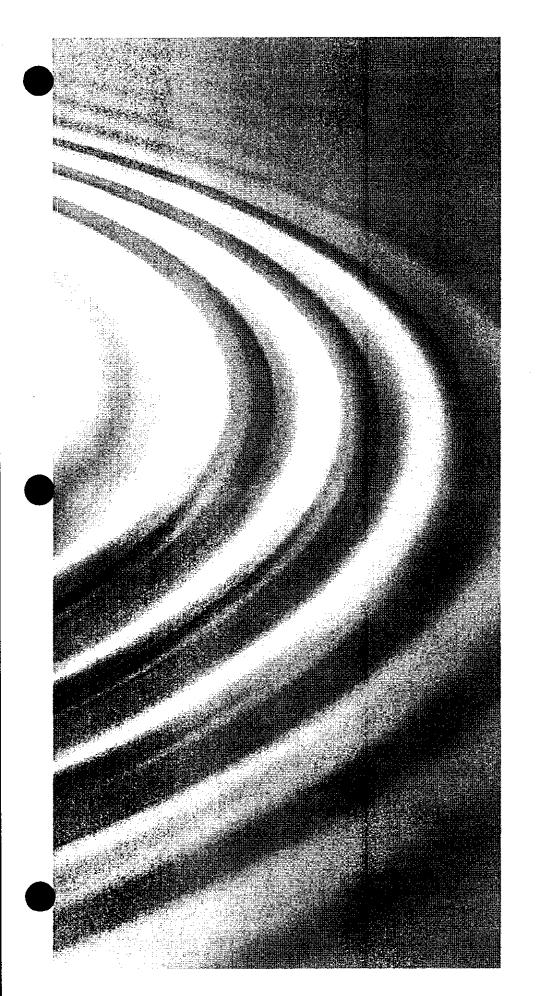
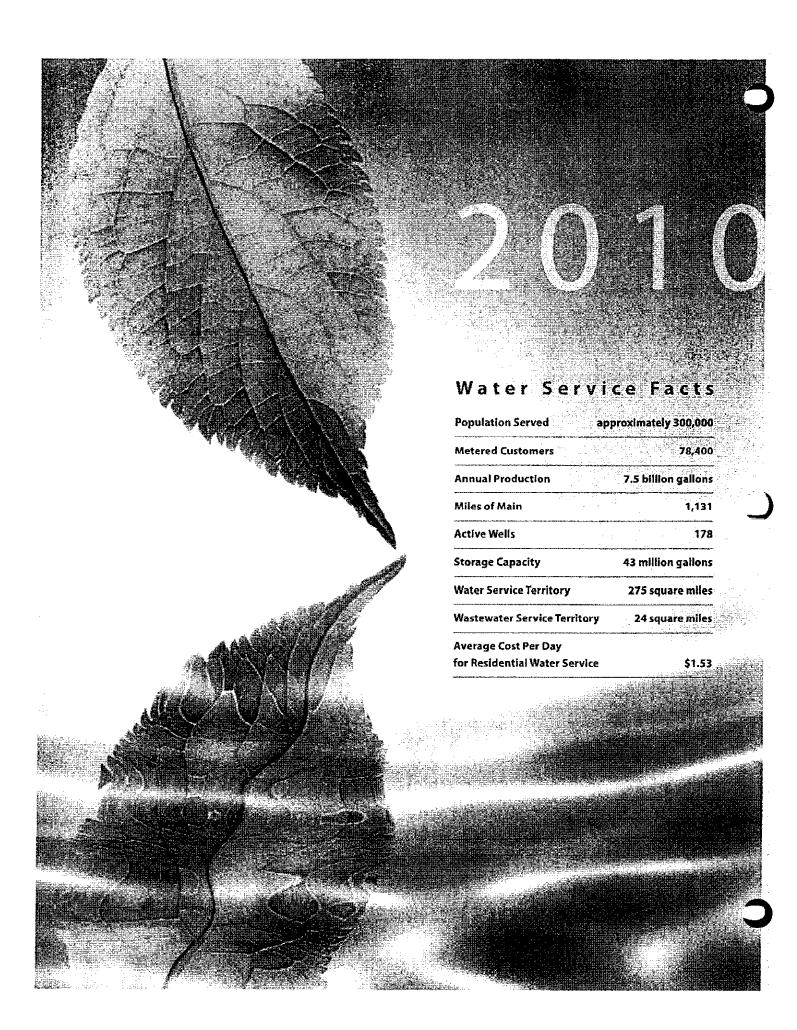


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For more information about Artesian Resources Corporation, please visit us at:

www.artesianresources.com



Highlights

In 2010, Artesian was able to take advantage of the full in regional economic activity to advance its plan for becoming the primary water and wastewater supplier in the designated growth area of Cecil County, Maryland, and to consolidate its position in southern Delaware. The Company achieved these strategic growth objectives while continuing to expand its water and wastewater businesses on the Delmarva Peninsula.

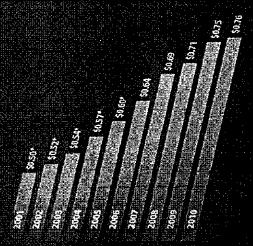
- Added 2 square miles of franchised water service area. The Company's exclusive water franchise now totals 275 square miles in Delaware, Maryland and Pennsylvania, and its exclusive wastewater franchise now totals 24 square miles in Delaware.
- Closed on an agreement to buy the water assets of the Town of Port Deposit,
 Maryland, which include access to the Susquehanna River as a source of water supply.
 Artesian has a more than sufficient supply to meet future demands in the designated growth corridor of Cecil County, Maryland.
- Created the Artesian Water Recycling Partnership to encourage and support the
 use of reclaimed water for agricultural irrigation and other needs. The first project in
 Middletown, Delaware, has already saved more than 76 million gallons of water.
- Brought together all of the Sussex County operations of Artesian Water, Artesian
 Wastewater Management and Artesian Consulting Engineers in a newly acquired facility
 on Route 1 near Lewes, Delaware.
- Completed construction of a new water system serving the residents of the Charlestown
 Crossing housing development in Cecil County.
- Invested \$19.8 million in 2010 for infrastructure improvements that will help us ensure top-quality service for our customers.

Dear Felino

Financija i de Hijoghlights

	For the year ended December 31									
In millions except per share amount	\$ 2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Operating Revenues	\$64,89	\$60.91	\$56,19	\$52.52	\$48.59	\$45.29	\$39,58	\$36.30	\$34.60	\$31.99
Operating Expenses	50.62	47.27	44.28	40.76	36.79	34.64	29.71	27.77	26.42	24.59
Operating Income	14.27	13.64	11.91	11.77	11.80	10.64	9.87	8.53	8.18	7.40
Net Income	7.62	7.26	6,42	6.26	6,07	5,04	4.40	3.92	4.17	3.32
Net Income Per Common Share - Diluted	1,00	0.97	0.86	0.90	0.97	0.81*	0.72*	0.64*	0.76*	0.70*
Cash Dividend Per Common Share	0,75	0.72	0.71	0.66	0.61	0.58*	0.55*	0.53*	0.51*	0.49*
Rate Base	\$194.58	\$197.58	\$189.03	\$174.83	\$167.76	\$160.04	\$152.21	\$131.56	\$115.18	\$98.68

^{*}Restated for the stock split effective May 30, 2006



Annualized Dividend per Common Share (at December 31)
* Restated for the stock split effective May 30, 2006

This past year, we talked to many investors about Artesian Resources and the benefits our company provides to shareholders. We heard about the consistency of our earnings (which were again at record levels in 2010!) and our clockwork-like delivery of dividends and dividend increases. In short, we provide predictability, which is even more highly prized when the economy is volatile.

But we are more than just a safe haven in tough times. We're built to deliver sound returns during the good times as well. We have taken advantage of the lull of the last few years to make acquisitions and infrastructure investments that have positioned our company to grow quickly as the economy rebounds. We now have service coverage in the areas of the Delmarva Peninsula that are expected to develop most rapidly. We also have the modern plants and equipment that will enable us to deliver safe, reliable water and wastewater service to our customers.



In 2010, we set new company records in revenues and net income, despite the soft economy that limited growth in our service areas. Our revenues grew to \$64.89 million, a 6.5% increase from \$60.91 million for 2009. Net income grew to \$7.62 million, a 4.9% increase from the prior year's \$7.26 million, representing the 7th consecutive year of net income growth. Diluted net income per share increased to \$1.00, up from \$0.97 for 2009.

Our strong earnings helped us to continue what has become a tradition for our shareholders: dividend checks. We began paying dividends in 1931 and we have now paid dividends each quarter for the last 18 years. In 2010, we increased our annual common stock dividend twice, by 0.5% in April and another 0.5% in October, which brought the annual dividend to \$0.7568 per share. We have now raised our dividend each year for the last 13 years. Over the last five years, we have increased our dividend at a 4.8% average annualized rate.

Revenue growth was driven by an increase in water sales, compared to 2009, when record rains had reduced water usage in our service areas. While water sales comprise 87% of total operating revenues, we continue to recognize the value of and to pursue the growth and diversity of our non-utility businesses. These ventures are an important source of value for our company. Last year, for example, our engineering services and our Service Line Protection programs made a significant contribution to our revenues.

Operating expenses, excluding income taxes and depreciation, increased by 7.4%; however, the ratio of those expenses to total revenue remained relatively flat.

We have been able to execute so consistently because we know our business very well. Artesian has now been providing water service for more than 100 years. We have an experienced and talented management team and a growth-oriented strategic plan, and we never lose sight of why we exist: to provide solutions for our customers, communities and shareholders.

That is why we have made Solutions the theme of this annual report. The water and wastewater solutions we deliver to our customers—who represent a population of more than 300,000 on the Delmarva Peninsula—are essential for health and safety. The solutions we deliver to our communities—via millions of dollars of infrastructure investments each year—support growth and prosperity. And the solutions we provide to our shareholders—in the form of consistent, high-quality earnings—help them meet their financial goals.

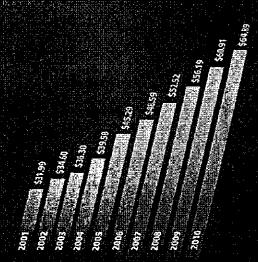
Thank you for your investment and ongoing confidence in and support for our business.

Sincerely,

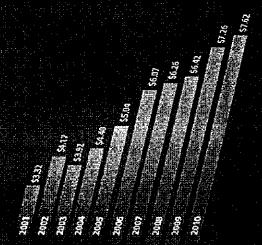
Dian C. Taylor

Chair of the Board, President and CEO

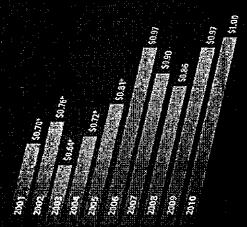
Dian C. Saylor



Operating Revenues (In millions)

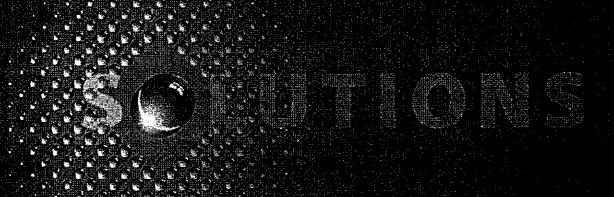


Net Income (in millions)



Diluted Earnings Per Share
*Restated for the stock split effective May 30, 2005





Total Water Resource Solutions

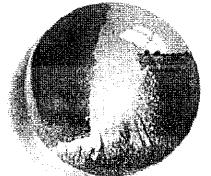
Artesian was founded more than 100 years ago to solve the water needs of small communities in northern Delaware. Our mission then was the same as it is now: to efficiently provide our customers with the very best service possible.

In the years since, we have expanded our capabilities and now provide water and wastewater solutions throughout Delaware and in nearby areas of Maryland. We are a total water resource management company focusing on a wide spectrum of activities, from identifying new and dependable sources of water supply, to developing wells, treatment plants and delivery systems, to planning, building, and responsibly managing wastewater systems.

Because of our dedication to our customers, our commitment to quality, and our consistent financial performance, Artesian has flourished. The Company is the eighth largest investor-owned water utility in the United States.

WELL SUPPLY

Deep Aquifers



WATER
TREATMENT PLANT
Design, Build, Operate, Own

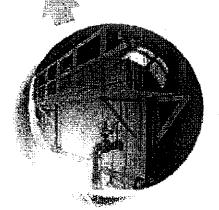


DISPOSAL

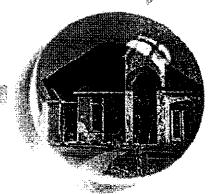
Aquifer Recharge

TOTAL
WATER RESOURCE
MANAGEMENT

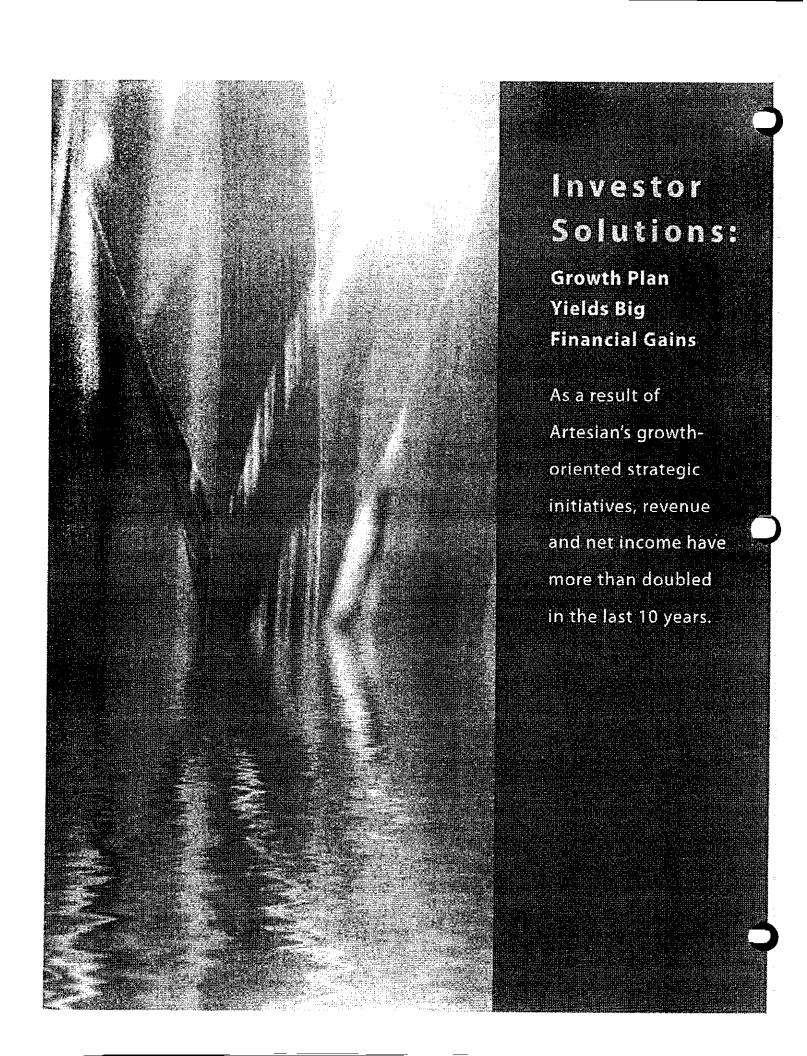




WASTEWATER TREATMENT PLANT Design, Build, Operate, Own



RESIDENCE Water, Wastewater, Service Line Protection



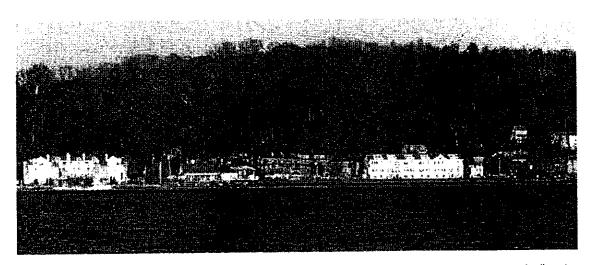
Positioned for

While the weak economy slowed growth in our franchised areas, we added 1,500 metered customers in 2010, and we believe the region continues to be attractive for future development. We made significant advances in 2010 in preparing for this eventual growth.

In Cecil County, Maryland, new businesses and thousands of residents are expected to move to the county's designated growth area as a result of the decision by the Base Realignment and Closure Commission to consolidate some U.S. Army functions at the nearby Aberdeen Proving Grounds (APG). Nearly 60,000 new jobs—up from the initial estimate of 40,000—are expected at APG.

Artesian's service area spans Cecil
County's designated growth area and
continues to expand. In 2010, we closed on
an agreement to acquire the water assets
of the Town of Port Deposit. Those assets
included a water supply allocation from
the Susquehanna River.

In Delaware, we expect that our customer base will increase, particularly in the southern part of the state (Sussex County), because of the relatively lower cost of living and the availability of development sites near the Atlantic Ocean. To support such growth, we began construction in 2010 of our Northern Sussex Regional Water Recharge facility, which ultimately will provide millions of gallons of wastewater service in Sussex County. The facility includes a 75-acre treatment site and approximately 1,700 acres of preserved farmland, where treated wastewater will be disposed of through spray irrigation.



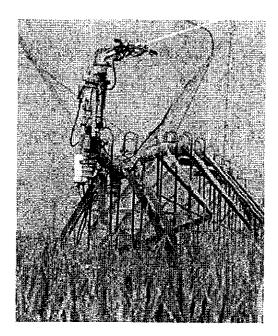
Artesian closed on an agreement to acquire the water assets of the Town of Port Deposit, including a water supply allocation from the Susquehanna River, Artesian can supply the entire length of the Cecil County, Maryland, growth area.

Artesian is not just waiting for the economy to turn around and drive growth. In the last few years, the Company has steadily increased its non-utility operating revenue by introducing its Service Line Protection Plans, signing design and operating contracts for water and wastewater systems, and acquiring a consulting engineering firm, which is now known as Artesian Consulting Engineers, Inc. Last year, non-utility operating revenue grew by 8.2% to \$5.23 million, and in the last five years, it has tripled.

Our Water and Sewer Service Line
Protection Plans are quite popular. In 2010,
they generated \$1.69 million in revenues.
The plans cover maintenance or repairs of
participants' water or sewer service lines
should the lines broak, leak or become
clogged.

Municipalities and developers are increasingly turning to Artesian's experience in designing, building and operating water and wastewater systems. Artesian has more than 20 contracts with private, municipal and governmental institutions. These include agreements to provide water to, or operate water or wastewater systems for, Cecil County, Chesapeake City, Elkton and Charlestown in Maryland, and Middletown, Clayton, Georgetown, Odessa, City of New Castle, Delaware City and Dagsboro in Delaware.

Last year, we announced the creation of the Artesian Water Recycling Partnership (AWRP), which was developed to encourage and support the use of reclaimed water for agricultural irrigation and other needs. The AWRP's first project, in Middletown, has already saved millions of gallons of water and increased the capacity of the town's wastewater system. Artesian provided project planning and engineering and completed the project in cooperation with seven partners—the town of Middletown, Governor Jack Markell's office, the Delaware Department of Natural Resources and Environmental Control, the Delaware Department of Agriculture, the University of Delaware and two area farmers.

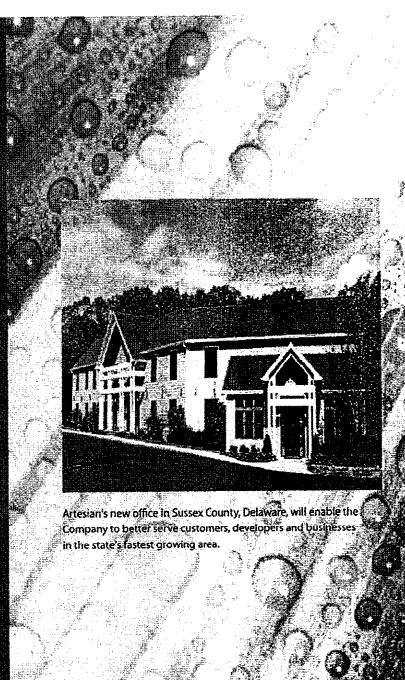


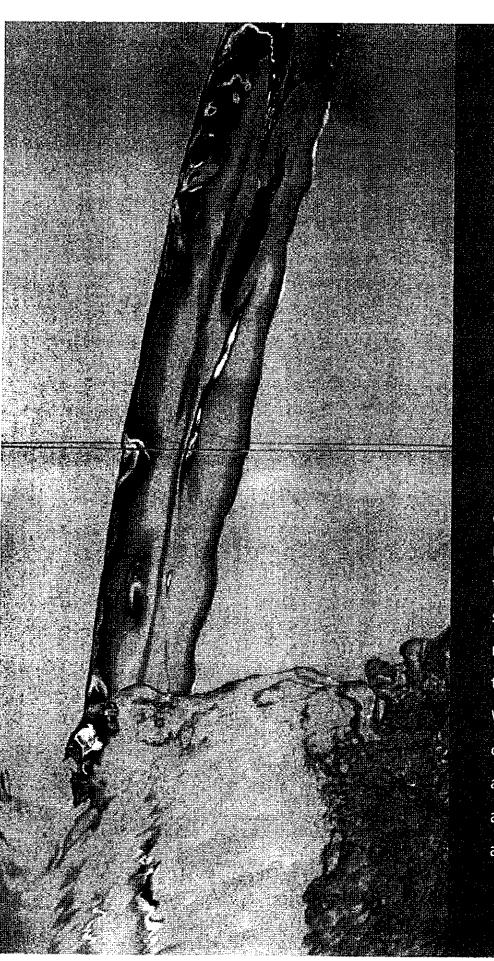
Artesian's innovative water recycling partnership in Middletown, Delaware, brought together various state and local government agencies for an award-winning project that is saving the state millions of gallons of water.

Customer Solutions:

Sussex County Office

To better serve our customers in Sussex County, the state's fastest growing area, we have brought together the southern Delaware operations of Artesian Water, Artesian Wastewater Management and Artesian Consulting Engineers in a new facility outside Lewes, Delaware.





Customer Solutions:

Ensuring a Safe Water Supply

Our network of deep wells enables us to tap some of the cleanest, safest supplies of water found in nature. Even with the superior quality of our water supply, we have incurred steadily rising operating costs and have required more staff expertise to meet the increasingly stringent drinking water regulations issued pursuant to the federal Safe Drinking Water Act. We routinely test our water for contaminants and can report that we are in full compliance with all requirements.

The People of

Our century of providing quality water service in our markets gives us a competitive advantage. Having developed a reputation for excellence, we are able to attract and retain highly qualified and committed employees and managers who are established industry experts. Our reputation and experience have also helped us to negotiate water and wastewater service and acquisition agreements in the fastest-growing areas of Delaware and Cecil County, Maryland.

One of our experts is Senior Vice

President Bruce Kraeuter. In 2010, Bruce

was appointed to the U.S. Department

of Homeland Security's Water Sector

Coordinating Council, one of 10 councils

that address the safety of the nation's critical
infrastructure in different industry sectors.

Bruce is one of the nation's leading authorities
on water and wastewater systems, and
we are very fortunate and proud to have
him on our management team.



Senior Vice President Bruce Kraeuter was appointed to the U.S. Department of Homeland Security's Water Sector Coordinating Council.



Involvement in the



In addition to our industry know-how, our company and our employees actively participate in the communities on the Delmarva Peninsula where we provide service. Following are just a few examples of our community involvement during 2010:

- For the 19th consecutive year, Artesian sponsored and volunteered in the Christina River Watershed Clean-up, which recently received the Governor's Outstanding Volunteer Award for the Environment.
- For the fourth straight year, Artesian volunteers placed first in the Blood Bank of Delmarva's Summer Blood Challenge.
- Artesian employees volunteered throughout the year in countless other activities benefiting the people in the communities we serve. These efforts included the Basket Brigade of Delaware,

the Salvation Army Christmas Angel Tree Program, the Cecil County Christmas in April Program, the American Cancer Society Making Strides Against Breast Cancer Walk, the Delaware MUD RUN benefiting the Leukemia Research Foundation, and many other walks, runs and events.

Providing Solutions

All of us at Artesian are proud of the work we do. We provide essential services for our customers. We operate efficiently—our water service costs just \$1.53 per day for our average residential customer. We continually improve our water and wastewater systems, hire the best people possible, invest in the infrastructures of our communities, and generate sound returns and increasing dividends for our shareholders.



Artesian has been a proud sponsor of the Christina River Watershed Clean-up, which received the Governor's Outstanding Volunteer Award for the Environment.

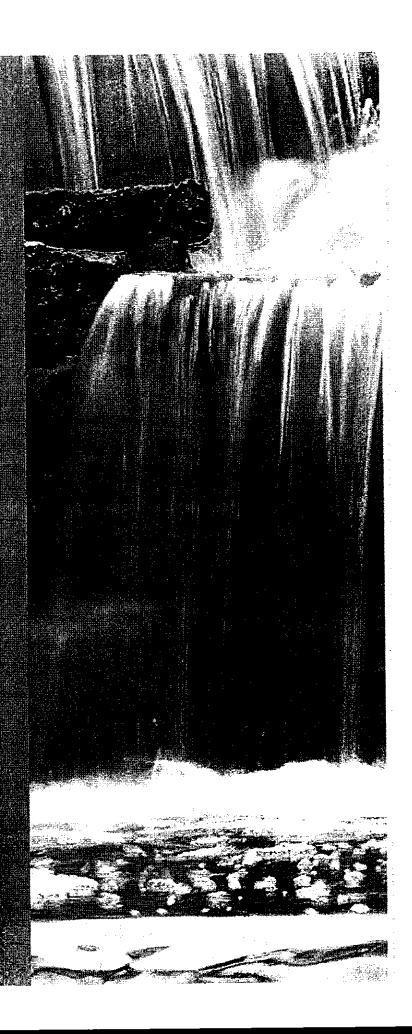
Community Solutions:

Regiding initative Saves William arealton of Weige

The Artesian Water Recycling
Partnership (AWRP)—a unique
collaboration between Artesian and
state, local and private partners—
is already saving millions of gallons of
water in Middletown, Delaware, by
enabling farmers to irrigate their
fields with reclaimed water.

Through the AWRP, Artesian provides
planning, engineering and technical
expertise and helps bring together
the required partners for a successful
green initiative.

Using reclaimed water saves our groundwater, reduces nutrients in our rivers and streams and in the Chesapeake and Delaware Bays, enables municipalities to expand wastewater service without capital expenditures for the purchase of land, and makes farming more financially tenable.



Information

Shareholder Inquiries

Shareholder inquiries regarding Class A Non-Voting Common Stock accounts, including transfer requirements, lost certificates and dividend payments, should be directed to:

Registrar and Transfer Company 10 Commerce Drive Cranford, New Jersey 07016-3572 (800) 368-5948 www.rtco.com

Shareholder inquiries regarding Class B Common Stock accounts, including transfer requirements, lost certificates, dividend payments and requests for investment materials, should be directed to:

Nicholle R. Taylor, Vice President Artesian Resources Corporation P.O. Box 15004 Wilmington, Delaware 19850 (302) 453-6900 (800) 332-5114 ntaylor@artesianwater.com

Dividend Reinvestment and Stock Purchase Plan

The holders of record of the Company's Class A Non-Voting Common Stock are eligible to participate in the Dividend Reinvestment Plan. The plan provides for the direct purchase of Class A Non-Voting Common Stock through reinvestment of dividends and/or optional cash payments without any fees. To obtain a copy of the plan prospectus, contact either Registrar and Transfer Company or Artesian directly.

Projected 2011 Dividend Dates

(Subject to the approval of the Artesian Resources Corporation Board of Directors)

	4th	November 11, 2011	November 23, 2011
-	3rd	August 8, 2011	August 19, 2011
- :	2nd	May 10, 2011	May 20, 2011
	131	February 8, 2011	February 18, 2011
	Quarter	Record Date	Payment Date

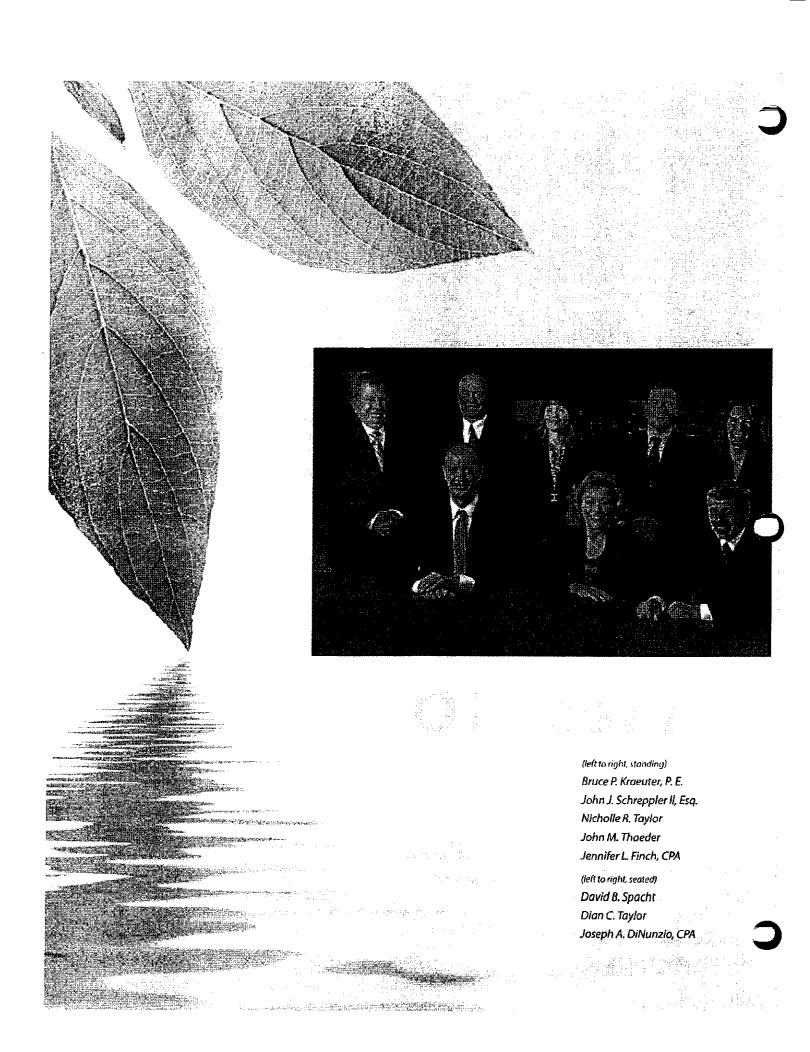
CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

All statements other than historical facts are forward-looking and actual results may differ materially from those projected, anticipated or implied. Please refer to "Risk Factors" on pages 16, 17, 18 and 19 of the Company's Annual Report on Form 10-K for the year ended December 31, 2010 for a description of the substantial risks and uncertainties related to the forward looking statements included in this Annual Report. Past performance of Artesian's Common Stock is not predictive of future returns.

ARTESIAN RESOURCES CORPORATION

Tuesday, May 17, 2011 2:30 p.m.

White Clay Creek Country Club 777 Delaware Park Boulevard, Wilmington, Delaware



Officers

Dian C. Taylor

President and Chief Executive Officer.
Artesian Resources Corporation & Subsidiaries

Nicholle R. Taylor

Vice President, Artesian Resources Corporation & Subsidiories

Joseph A. DiNunzio, CPA

Executive Vice President & Corporate Secretary, Artesian Resources Corporation & Subsidiaries

Jennifer L. Finch, CPA

Vice President & Assistant Treasurer, Artesian Resources Corporation & Subsidiaries

Bruce P. Kraeuter, P. E.

Senior Vice President, Artesian Water Company, Inc., Artesian Water Pennsylvania, Inc., Artesian Water Maryland, Inc., Artesian Wastewater Management, Inc., Artesian Utility Development, Inc.,

John J. Schreppler II, Esq.

Vice President, Assistant Secretary & General Counsel, Artesian Resources Corporation & Subsidiaries

David B. Spacht

Chief Financial Officer & Treasurer, Artesian Resources Corporation & Subsidiaries

John M. Thaeder

Senior Vice President,
Artesian Water Company, Inc.,
Artesian Water Pennsylvania, Inc.,
Artesian Water Maryland, Inc.,
Artesian Wastewater Management, Inc.,
Artesian Utility Development, Inc.,
Artesian Consulting Englineers, Inc.,
Artesian Wastewater Maryland, Inc.,



Dien C. Taylor

Chair of the Board, President & CEO, Artesian Resources Corporation & Subsidiaries



John R. Eisenbrey, Jr.

Owner & President, Bear Industries, Inc.



William C. Wyer

Business Consultant, Wyer Group, Inc.



Nicholle R. Taylor

Vice President, Artesian Resources Corporation & Subsidiaries



Kenneth R. Biederman, Ph. D.

Professor – Department of Finance, Lerner College of Business and Economics, University of Delaware

Artesian Resources Corporation and Subsidiaries

Artesian Resources Corporation operates as the holding company of our eight wholly owned subsidiaries.

Artesian Water Company, Inc. is our principal subsidiary. It is the oldest and largest investor-owned public water utility on the Delmarva Peninsula and has been providing water service since 1905. Artesian Water distributes and sells water to residential, commercial, industrial, governmental, municipal and utility customers throughout Delaware. The Company also provides services to other private and municipal utilities, including operations and billing functions.

Artesian Water Maryland, Inc. was established in July 2007 with approval of the Maryland Public Service Commission and provides public water utility services to customers in Cecil County, Maryland. The company is an important part of our strategy to be the preeminent provider of public water utility services on the Delmarva Peninsula.

Artesian Water Pennsylvania, Inc. began operations in 2002 and was given approval by the Pennsylvania Public Utilities Commission to expand its service area in 2005. The company provides public water utility services to customers in southeastern Pennsylvania.

Artesian Wastewater Management, Inc. is a regulated entity that owns and operates wastewater facilities in Delaware. The company provides public wastewater services to customers throughout Delaware.

Artesian Wastewater Maryland, Inc. was established in June 2008 and will own and operate wastewater facilities in Maryland and be subject to regulation by the Maryland Public Service Commission. The company is able to provide public wastewater services to customers throughout the state of Maryland.

Artesian Utility Development. Inc. is a non-regulated operating company that designs and builds water and wastewater infrastructure and provides contract water and wastewater services on the Delmarva Peninsula.

Artesian Consulting Engineers, Inc. is our subsidiary providing engineering services to developers of residential and commercial properties as well as design services for on-site water and wastewater systems. Artesian Consulting Engineers also designs off-site wastewater collection systems.

Artesian Development Corporation is the real estate holding company of Artesian Resources.

